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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/899,265	07/06/2001	Nevein T. Sultan	9-13528-170US	3921
7590 Swabey Ogilvy Renault Suite 1600 1981 McGill College Avenue Montreal, QC H3A 2Y3 CANADA			EXAMINER REFAI, RAMSEY	
			ART UNIT 3627	PAPER NUMBER
			MAIL DATE 10/30/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/899,265

Applicant(s)

SULTAN ET AL.

Examiner

Ramsey Refai

Art Unit

3627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8, 10-15, 17-25, 27-31 ~~1-4, 22-24 and 36~~ is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8, 10-15, 17-25, 27-31 ~~1-4, 22-24 and 36~~ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Art Unit: 3627

DETAILED ACTION

Response to Amendment

Responsive to Amendment received August 9, 2007. Claims 1-8, 10-15, 17-25, and 27-31 remain pending further examination.

Response to Arguments

1. Applicant's arguments in view of Zhang have been fully considered but they are not persuasive.

- In the remarks, the Applicant rebuts the Examiner's response to the previous arguments and further argues:

Argument A: *the person of ordinary skill in the art will recognize that differing forwarding data is in no way equivalent to differing forwarding rules... However, identical data in each forwarding tables will cause identical routing, because the forwarding rule (logic) in each case is the same. Thus it will be plainly obvious that any differences in packet forwarding (using the two forwarding tables) will be solely due to the data stored in each routing table, not the rules which governs what happens when a match criterion is satisfied.*

Argument B: *forwarding the LSA to destinations listed in the forwarding table at each router is plainly impossible.*

- In response, the Examiner respectfully disagrees. According to the MPEP CH. 2111, claims must be given their broadest reasonable interpretation consistent with the specification. Webster defines the term "rule" as "a prescribed guide for conduct or action". Forwarding data can be regarded to as a prescribed guide for action. Therefore, differing forwarding data can be interpreted by one skilled in the art as differing forwarding "rules" since each forwarding data contains differing guides for action. (It is

noted that a forwarding *policy* and not a forwarding *rule* is being claimed). The Applicant also argues that forwarding the LSA to destinations listed in the forwarding table at each router is plainly impossible. However, the propagation of LSAs is clearly taught by Zhang using routing tables generated by each router. In column 3, lines 24-40, Zhang teaches that the transmission of LSAs to network devices in a router's network area. The router advertises the LSAs into specific areas. In column 3, line 40-column 4, line 22, Zhang further teaches that based on information received from the LSAs, each router calculates routes to various destination in the network. Routing tables are generated containing these destinations and the method of routing data to these destinations.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-6, 10, 12-15, 17-22, 25, and 27-29 are rejected under 35 U.S.C. 102(e) as being anticipated by Zhang (US Patent No. 6,275,492).

4. As per claim 1, Zhang teaches a method of enabling policy-based traffic forwarding in a data network having at least two area border routers (ABR), the method comprising steps of:

Art Unit: 3627

generating a link stat advertisement (LSA) message (column 3, line 25), and asserting a route tag in respect of the generated LSA message (column 1, lines 54-60, column 4, lines 59-67) and

at each ABR receiving the LSA message, controlling propagation of the received LSA, into an area of the data network hosted by the ABR, based on a respective forwarding policy having a match criteria corresponding to the asserted route tag (column 1, lines 54-60, column 4, lines 33-49, fig 3, element 76);

wherein the respective forwarding policy of a first ABR differs from that of a second ABR, such that the received LSA message is flooded into the area hosted by the first ABR and not flooded into the respective area hosted by the second ABR (column 3, line 42-column 4, line 22).

5. As per claim 2, Zhang teaches the data network is an Open Shortest Path first (OSPF) network (column 3, line 5).

6. As per claim 3, Zhang teaches a route tag comprises one of: an internal route tag associated with an address located within an autonomous system of the data network; and an external route tag associated with an address located outside the autonomous system (column 1, line 54-60, column 4, line 59-67).

7. As per claim 4, Zhang teaches the step of asserting a route tag comprises steps of: setting a route tag value respecting the LSA; and inserting the route tag value into a predetermined field of the LSA (column 1, line 54-60, column 4, line 59-67).

8. As per claim 5, Zhang teaches wherein the route tag value is set by a policy having a match criteria corresponding to a predetermined attribute of the LSA (column 1, line 54-60, column 4, line 59-67).

Art Unit: 3627

9. As per claim 6, Zhang teaches wherein the predetermined attribute comprises any one or more of: a source address; a source area; a destination address; and a destination area (column 1, line 54-60, column 4, line 59-67).

10. As per claim 7, Zhang teaches the step of inserting the route tag comprises a step of inserting the route tag value into an external route tag field of the generated LSA (column 1, line 54-60, column 4, line 59-67) wherein the generated LSA is a Type-5 LSA (column 3, lines 4-15. multiple types of LSAs, including Type-5, are well known to be inherent in OSPF environment).

11. As per claim 8, Zhang teaches the step of inserting the route tag comprises a step of inserting the route tag value into an internal route tag field (column 1, line 54-60, column 4, line 59-67) of a modified Type-3 LSA (column 3, lines 4-15. multiple types of LSAs, including Type-3, are well known to be inherent in OSPF environment).

12. As per claim 10, Zhang teaches the forwarding policy corresponds to one of: a pass decision, in which the LSA is forwarded to a downstream link; and a discard decision, in which the LSA is discarded without forwarding (column 4, lines 10-50; routing table used to determine whether to forward a packet).

13. As per claims 11 and 27, wherein implementation of the forwarding policy further comprises a step of updating a forwarding table using information contained in the LSA as either one of: an inclusion route and an exclusion route (column 1, lines 25-53; information from LSA is used to update forwarding tables).

14. As per claim 14, Zhang teaches an autonomous system border router, and an area border router (column 3, lines 17-21, column 4, line 19).

15. As per claims 12 -13, 15, 17- 22, 25, 28, and 29, these claims contain similar limitations as claims 1-6, and 9-10 above, therefore are rejected under the same rationale.

Art Unit: 3627

16. As per claims 23-24 and 30-31, these claims contain similar limitations as claims 7-8 above, therefore are rejected under the same rationale.

Conclusion

The prior art made of record and not relied upon, which is considered pertinent to applicant's disclosure, are cited in the Notice of Reference Cited form (PTO-892).

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramsey Refai whose telephone number is (571) 272-3975. The examiner can normally be reached on M-F 8:30 - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ryan Zeender can be reached on (571) 272-6790. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3627

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Ramsey Refai
Examiner
Art Unit 3627
October 18, 2007



F. RYAN ZEENDER
SUPERVISORY PATENT EXAMINER